

ABSTRACT

**[0001]** This present invention is related to a variable gain low noise amplifier which is operated to the best operation of input matching, gain and noise characteristics, linearity. The variable gain low noise amplifier according to an embodiment of the present invention includes a first amplifying cell operated in high gain mode, second amplifying cell operated in low gain mode, selectively matching circuit, and first short-circuit means. It is provided to the variable gain low noise amplifier according to the present invention for operating the best operation in each gain mode so that the circuit operated in high and low gain modes is not affect to a load with each other.